



Ashes to alabaster-like stones

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People usually turn to ceramic engineer Chris Chen of the Laboratory's fabrication manufacturing science group when they want advanced materials for scientific research or as high-tech components. He develops concepts, then processes and fabricates finished products to meet their needs.

But the request he received from Santa Fe artist and entrepreneur Justin Crowe was different: could he help refine a method that turns cremated ashes into alabaster-looking stones, using a kiln?

Crowe had reached out to the [New Mexico Small Business Assistance \(NMSBA\)](#) Program and was paired with Chen for a collaboration. NMSBA connects small businesses with expertise and capabilities from Los Alamos and Sandia national laboratories, at no cost to the businesses (the program is made possible by the state of New Mexico, which pays for the researchers' time through a tax credit). Since 2000, the two national laboratories have provided \$57.9 million in technical assistance to 2,797 businesses, enabling 7,853 jobs to be created and retained.

"I was surprised by the project when NMSBA first contacted me," says Chen. "I am a scientist/engineer and I do advanced ceramic work for high-tech applications such as satellites, airplanes and submarines. However, during the program, I realized there is a lot that I don't know and need to learn."

Since the solidification process for human ashes is similar to making ceramics, Chen's expertise was valuable. Chen and his team recommended improvements to Crowe's approach, enabling Crowe's company, Parting Stone, to develop a process to superheat cremated remains, chemically altering ashes into beautiful stones.

This process is now the basis for Parting Stone's product line, which was publicly launched in September.

Justin Crowe of Parting Stone.

Collaborations spur economic development

Support through the NMSBA program was instrumental in Crowe winning Santa Fe's 2018 bizMIX competition and enabling his startup to raise a \$500,000 seed round to open a processing lab and hire employees. The company expects to create as many as 100 new jobs.

While the benefit to Crowe's company might be clear, Chen stresses the benefits were mutual. "Justin educated me about a whole different world," he says. "As scientists,

we are limited to the scientific and engineering worlds, which are bound by rules and theories. However, by working with an artist like Justin, I learned a lot about the artistic world during the program.”

Parting Stone recently launched a project with several other Santa Fe companies to assess the environmental impact of their products. Again, through the NMSBA, they are collaborating with Chris Chen and other Laboratory researchers.

“The results from NMSBA and Los Alamos were spectacular, and we would love to work with them forever,” says Crowe.

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